

FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: Rappahannock River Valley NWRUse: Firewood Cutting

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	✓	
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	✓	
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	✓	
(d) Is the use consistent with public safety?	✓	
(e) Is the use consistent with goals and objectives in an approved management plan or other document?	✓	
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	✓	
(g) Is the use manageable within available budget and staff?	✓	
(h) Will this be manageable in the future within existing resources?	✓	
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?	✓	
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?	✓	

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will **generally** not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes ✓ No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate Appropriate ✓Refuge Manager: Joseph F. McCauleyDate: Dec 14, 2009

If found to be **Not Appropriate**, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found **Not Appropriate** outside the CCP process, the refuge supervisor must sign concurrence.

If found to be **Appropriate**, the refuge supervisor must sign concurrence.

Refuge Supervisor: Virginia E. RettigDate: December 21, 2009

A compatibility determination is required before the use may be allowed.

FWS Form 3-2319
02/06

Justification for Cutting Firewood as an Appropriate Use
Eastern Virginia Rivers NWR Complex
Rappahannock River Valley NWR

Firewood cutting by the public or refuge staff can benefit the refuge in several ways: cost savings from having to hire contractors, fuel reduction and prevention of wildfires, protection of refuge facilities, and assistance in cleanup from major storms. This use can be accommodated in select locations and during certain periods without causing negative impacts to the diversity or productivity to fish, wildlife or plants. Impacts from this proposal, both short-term and long-term, direct, indirect, and cumulative, are expected to be minor and are not expected to diminish the value of the refuge for its stated objectives. The area affected by the proposed use represents a small fraction of the refuge land area.

COMPATIBILITY DETERMINATION

Project Title: Firewood cutting
Station Name: Rappahannock River Valley National Wildlife Refuge
Date Established: May 28, 1996

Establishing Authorities:

The Emergency Wetlands Resources Act of 1986 (100 Stat. 3582-91) for: "...the conservation of the wetlands of the Nation in order to maintain the public benefits they provide and to help fulfill international obligations contained in various migratory bird treaties and conventions..." (16 U.S.C. §3901(b); 100 Stat. 3583).

The Endangered Species Act of 1973 (16 U.S.C. §1531-1543), as amended: "...to conserve (A) fish or wildlife which are listed as endangered species or threatened species...or (B) plants..." (16 U.S.C. §1534).

The Land and Water Conservation Fund Act (P.L. 88-578; 16 U.S.C. §4601; 78 Stat. 897) for: "...the acquisition of areas needed for conserving endangered or threatened species of fish, wildlife and plants..." (P.L. 94-422; 90 Stat. 1313).

Purpose for which Established:

The purposes for which the Rappahannock River Valley National Wildlife Refuge was established are:

"...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds ... 16 U.S.C. § 715d (Migratory Bird Conservation Act)," and

"... to conserve (A) fish or wildlife which are listed as endangered species or threatened species or (B) plants ... 16 U.S.C. § 1534 (Endangered Species Act of 1973)," and

"... the conservation of the wetlands of the Nation in order to maintain the public benefits they provide and to help fulfill international obligations contained in various migratory bird treaties and conventions ... 16 U.S.C. § 3901(b), 100 Stat. 3583 (Emergency Wetlands Resources Act of 1986)," and

"...for the development, advancement, management, conservation, and protection of fish and wildlife resources ... 16 U.S.C. § 742f(a)(4) (Fish and Wildlife Act of 1956)."

National Wildlife Refuge System Mission: To administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.

Description of Proposed Use: The following questions and answers provide a concise description of the proposed use.

1. What is the use? Is the use a priority public use? The use is firewood cutting by the public or by refuge staff. It is not one of the priority uses of the Refuge System, however, cutting of downed trees by the public or refuge staff could facilitate priority uses by removing obstacles along trails or public roads, or by removing trees that threaten refuge facilities.

In accordance with 50 CFR 29.1, firewood cutting is an economic use of the refuge, in that firewood is a commodity that is typically bought and sold.

2. Where would the use be conducted? Firewood cutting could potentially occur on any refuge tract acquired in fee. Fire wood collection will be restricted to existing roads, trails, dikes and other facilities. No new roads will be constructed to facilitate this use. Equipment used for the harvesting and collection of firewood will be limited to chainsaws and axes for cutting. Personal pick-up trucks with small utility trailers would generally be used for access and hauling of wood. Other equipment such as farm tractors may be allowed if the refuge manager determines that no resource damage is likely to occur as a result, and if this type of equipment would result in a more efficient or safer operation.

We have no authority to allow this use on tracts where the refuge holds a conservation easement.

3. When would the use be conducted? The use would occur during daylight hours, potentially on any day of the week throughout the year. The use will be limited to times when the ground is dry to prevent rutting and damage to roads or underlying soils and vegetation.

4. How would the use be conducted? We plan to permit firewood cutting for personal use when removing wood from the refuge provides benefits to refuge management, such as after a storm event when trees are blocking refuge roads or if standing trees threaten refuge facilities. We may also allow wood to be taken in situations where doing so would not materially interfere with refuge purposes or prevent us from accomplishing refuge objectives. For example, if an individual tree falls along a common boundary with a refuge neighbor, and the neighbor requests to be allowed to cut the tree for firewood, we may issue a special use permit authorizing this use, if doing so would not have adverse impacts on adjoining habitat.

Pending regional director approval, we may also extend the firewood cutting privilege to refuge staff under the same conditions as those presented to the public at large. In the event of a large storm event, such as Hurricane Isabel, we may have dozens or even hundreds of trees down on the refuge. Allowing refuge staff or the public to remove trees may save the refuge time and funds, especially at times when tree contractors have more work than they can handle.

We would evaluate firewood cutting requests on a case-by-case basis. We would evaluate potential impacts to adjoining habitats (including access lanes), safety, duration, time of year, and any other parameters necessary to protect wildlife, plants, and habitat and to ensure public safety. Prior to allowing this use, a special use permit would be issued describing the parameters of the activity (who, when where, how), and any special conditions that must be followed.

We would likely charge a small fee for firewood cutting, such as \$25 per cord. A cord is roughly two loads in a full size pickup truck. This would help defray administrative costs in issuing and enforcing special use permits. The fee would apply equally to the public or refuge staff. Refuge staff would not be permitted to use refuge equipment or vehicles for firewood cutting or removal if it is for personal use.

5. Why is the use being proposed? This use is being proposed in response to past inquiries from refuge neighbors who have asked for permission to cut and remove trees that have fallen on or near refuge boundaries near their private property. We deferred making any decision on these requests since they came during preparation of the refuge's Comprehensive Conservation Plan and we wanted to evaluate them in light of newly developed refuge goals, objectives, and strategies. It is clear that none of the proposed refuge goals, objectives, or strategies would be materially compromised due to a firewood cutting program that receives further evaluation on a case-by-case basis. The program will significantly enhance our ability to engage, educate and utilize volunteers and other individuals in refuge management activities by permitting and authorizing the collection of firewood for personal use.

We are also cognizant of past instances when having the public or staff remove trees from refuge roads or public use areas would have benefitted the refuge in terms of cost savings or timeliness, such as after Hurricane Isabel.

Tree removal can also reduce fire hazards by reducing fuel loads after timber harvest, storm events, or in areas that are overstocked.

Availability of Resources: We do not anticipate this use requiring significant resources to administer. Refuge staff would have to visit any sites proposed for firewood cutting and evaluate the situation using parameters described above. A special use permit would be issued and monitored. Follow up with permittees may be necessary if all conditions of the permit were not met. We expect that in the majority of instances, these activities would require a minimal amount of time. An estimate of resources required for a single permit is as follows:

Site visit:	1 hour @ \$30/hour*	= \$30.00
Permit preparation:	0.5 hour @ \$18/hour**	= \$ 9.00
Permit compliance:	1 hour @ \$30/hour	= \$30.00
Total:		= \$69.00

Potential income based on 2 cords per permit: @ \$25 = \$50.00

Net estimated resources required per permit: = \$19.00

* \$30/hour based on average of GS-7 (refuge officer), GS-12 (deputy manager) and GS-13 (manager).

** \$18/hour based on GS-7 (administrative assistant).

Anticipated Impacts on Refuge Purpose: As noted on page one of this compatibility determination, there are four purposes for establishment and management of this refuge. In general, they relate to four primary conservation and management responsibilities:

1. Migratory birds,
2. Threatened and endangered plant and animal species,
3. Wetlands, and
4. Other fish and wildlife resources.

Following is a discussion on the anticipated impacts of the proposed uses related to the resources listed within refuge purposes.

Potential impacts to birds: Firewood cutting could adversely impact birds through disturbance due to excessive noise, trampling of nests, loss of nests built in downed trees, removal of cavity trees, and disturbance during ingress and egress.

Since permits will only be issued after a site visit by refuge staff, we can ensure that impacts will be minimized or eliminated. For example, we would not permit removal of dead standing trees unless they threaten refuge facilities. In those instances, we will remove only that portion of the tree that is likely to cause damage and will leave as much of the trunk as possible to serve as future cavities and as feeding areas for insectivorous birds. We will also rely on existing roads and trails for access, reducing the potential loss of habitat from creating new roads or trails. Disturbance due to noise and activity in the immediate vicinity of trees being cut will be temporary and confined to a relatively localized area. We will observe time of year and distance restrictions for bald eagles as outlined in the Virginia bald eagle management guidelines.

Potential impacts to threatened and endangered species: The only federal-threatened species confirmed to exist on the refuge is the sensitive joint-vetch. The sensitive joint-vetch is an annual legume that grows along fresh tidal rivers and streams. Firewood cutting would not occur in proximity to this habitat and therefore would have no impact on this species.

Potential impacts to wetlands: Potential adverse impacts to wetlands could arise if vehicles were permitted to access firewood cutting areas through wetlands or if this or other activities associated

with the program increase erosion into wetlands. Site visits and the accompanying evaluations will prevent these impacts from occurring.

Potential impacts to other fish and wildlife: We expect that potential impacts to other fish and wildlife will be temporary and isolated.

We are including this program in our CCP as a planned activity common to all alternatives so we can accommodate requests and opportunities on a case-by-case basis without having to do a compatibility determination on each instance. In essence we will be doing an evaluation, and assuring compatibility, each time a request is made or we seek to save costs by inviting the public or staff to remove trees that we would otherwise have to have removed via contract. Each time we evaluate a potential firewood cutting operation, we will ensure that impacts to fish, wildlife, and plants, and their habitats, are minimal and do not interfere with refuge objectives. We will make it a condition of the permit that firewood taken from the refuge is for personal use and is not to be re-sold.

In summary, our research, observations and knowledge of the area provide no evidence that firewood cutting as described above, on a case-by-case basis, directly, indirectly, or cumulatively, will have an unacceptable effect on wildlife resources or their habitats.

Public Review and Comment: This determination was made available for a 30-day public review and comment period in conjunction with the release of the Draft Comprehensive Conservation Plan for the refuge.

Determination (check one below):

Use is Not Compatible

 X

Use is Compatible With the Following Stipulations

Stipulations Necessary to Ensure Compatibility:

1. All activities will comply with the Bald Eagle Protection Guidelines for Virginia, jointly developed by the U.S. Fish and Wildlife Service and the Virginia Department of Game and Inland Fisheries, in consultation with the Center for Conservation Biology.
2. Each special use permit issued for firewood cutting will be evaluated on a case-by-case basis to ensure that there will be only minor and temporary adverse impacts to wildlife and habitat.
3. Uses will be monitored as needed to ensure that the program contributes to, or does not detract from, refuge objectives.

Justification: Firewood cutting by the public or refuge staff can benefit the refuge in several ways: cost savings from having to hire contractors, fuel reduction and prevention of wildfires, protection of refuge facilities, and assistance in cleanup from major storms. This use can be accommodated in select locations and during certain periods without causing negative impacts to the diversity or productivity to fish, wildlife or plants. Impacts from this proposal, both short-term and long-term, direct, indirect, and cumulative, are expected to be minor and are not expected to diminish the value of the refuge for its stated objectives. The area affected by the proposed use represents a small fraction of the refuge land area.

In accordance with 50 CFR 29.1, firewood cutting, as described in this compatibility determination, significantly contributes to the mission, purposes, goals, and objectives of the Rappahannock River Valley NWR and the National Wildlife Refuge System mission.

Signature: Refuge Manager: Joseph F. McCauley 12/14/09
(Signature and Date)

Concurrence: Regional Chief: Anthony D. Leger 12/21/2009
(Signature and Date)

Mandatory 10-year Re-evaluation Date: DECEMBER 21, 2019

FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: Rappahannock River Valley NWRUse: Research

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	✓	
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	✓	
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	✓	
(d) Is the use consistent with public safety?	✓	
(e) Is the use consistent with goals and objectives in an approved management plan or other document?	✓	
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	✓	
(g) Is the use manageable within available budget and staff?	✓	
(h) Will this be manageable in the future within existing resources?	✓	
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?	✓	
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?	✓	

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will **generally** not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes ☐ No ☒

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate ☐Appropriate ☒Refuge Manager: Joseph F. McCauleyDate: December 7, 2006

If found to be **Not Appropriate**, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found **Not Appropriate** outside the CCP process, the refuge supervisor must sign concurrence.

If found to be **Appropriate**, the refuge supervisor must sign concurrence.

Refuge Supervisor: John P. StachDate: 1/10/07

A compatibility determination is required before the use may be allowed.

FWS Form 3-2319
02/06

Eastern Virginia Rivers NWR Complex
Rappahannock River Valley NWR

Justification for Research as an Appropriate Use

Prior to allowing any use of the refuge, the refuge manager must first determine if the use is appropriate, and if so, he or she must then complete a compatibility determination. The six priority wildlife dependent recreational uses (environmental education, fishing, hunting, interpretation, wildlife observation and wildlife photography) are considered by policy to be appropriate. Therefore, only general public uses or specialized uses must be evaluated for their appropriateness.

We have evaluated **research** and the refuge manager has determined that this use is appropriate.

Rappahannock River Valley National Wildlife Refuge was established

“...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds ... 16 U.S.C. § 715d (Migratory Bird Conservation Act,” and

“... to conserve (A) fish or wildlife which are listed as endangered species or threatened species or (B) plants ... 16 U.S.C. § 1534 (Endangered Species Act of 1973),” and

“... the conservation of the wetlands of the Nation in order to maintain the public benefits they provide and to help fulfill international obligations contained in various migratory bird treaties and conventions ... 16 U.S.C. § 3901(b), 100 Stat. 3583 (Emergency Wetlands Resources Act of 1986),” and

“for the development, advancement, management, conservation, and protection of fish and wildlife resources ... 16 U.S.C. § 742f(a)(4) (Fish and Wildlife Act of 1956).

The refuge manager has determined that research meets all ten criteria for a use of the refuge to be considered appropriate. A brief explanation follows:

Research conducted by non-Service personnel, including colleges, universities, federal, state, and local agencies, non-governmental organizations, and qualified members of the public can further our understanding of the natural environment and improve the management of refuge natural resources. Much of the information research generates applies to management on and near the refuge.

The Service encourages and supports research and management studies on refuge lands that will improve and strengthen decisions on managing natural resources. The refuge manager will encourage research that clearly relates to approved refuge objectives, improves habitat management, and promotes adaptive management. Research can provide information to better manage the Nation's biological resources that can be used by other units of the National Wildlife Refuge System, other Federal agencies, and State Fish and Game agencies. Research may address important management issues, or identify and refine techniques for managing species or habitats.

We will also consider permitting research for other purposes that may not relate directly to refuge-specific objectives, but contribute to the broader enhancement, protection, use, preservation or management of native populations of fish, wildlife and plants, and their natural diversity in the region or the Atlantic flyway. All proposals must comply with Service policy on compatibility, and generally require issuance of a special use permit.

COMPATIBILITY DETERMINATION

Project Title: Research

Station Name: Rappahannock River Valley National Wildlife Refuge

Date Established: May 28, 1996

Establishing Authorities:

The Emergency Wetlands Resources Act of 1986 (100 Stat. 3582-91) for: "...the conservation of the wetlands of the Nation in order to maintain the public benefits they provide and to help fulfill international obligations contained in various migratory bird treaties and conventions..." (16 U.S.C. §3901(b); 100 Stat. 3583).

The Endangered Species Act of 1973 (16 U.S.C. §1531-1543), as amended: "...to conserve (A) fish or wildlife which are listed as endangered species or threatened species...or (B) plants..." (16 U.S.C. §1534).

The Land and Water Conservation Fund Act (P.L. 88-578; 16 U.S.C. §4601; 78 Stat. 897) for: "...the acquisition of areas needed for conserving endangered or threatened species of fish, wildlife and plants..." (P.L. 94-422; 90 Stat. 1313).

Purpose for which Established:

The purposes for which the Rappahannock River Valley National Wildlife Refuge was established are:

"...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds ... 16 U.S.C. § 715d (Migratory Bird Conservation Act)," and

"... to conserve (A) fish or wildlife which are listed as endangered species or threatened species or (B) plants ... 16 U.S.C. § 1534 (Endangered Species Act of 1973)," and

"... the conservation of the wetlands of the Nation in order to maintain the public benefits they provide and to help fulfill international obligations contained in various migratory bird treaties and conventions ... 16 U.S.C. § 3901(b), 100 Stat. 3583 (Emergency Wetlands Resources Act of 1986)," and

"for the development, advancement, management, conservation, and protection of fish and wildlife resources ... 16 U.S.C. § 742f(a)(4) (Fish and Wildlife Act of 1956)."

National Wildlife Refuge System Mission: To administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.

Description of Proposed Use: The following questions and answers provide a concise description of the proposed use.

1. What is the use? Is the use a priority public use? The use is research or other ecological investigations not conducted by the Service or a Service-authorized agent. Research is not a priority public use of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997.

2. Where would the use be conducted? Research could be conducted throughout the refuge, depending on the subject. Any refuge tract could potentially be available for research activities. Specific areas open for research will be stipulated in conditions of a special use permit, including access points.

3. When would the use be conducted? As with locations, the timing of research will be dependent on the type and subject(s) of the research project. Research could potentially occur throughout the year. Time of year restrictions could be imposed to protect threatened or endangered species or to prevent conflicts with other refuge uses or management activities.

4. How would the use be conducted? The mechanics of the research will depend entirely on the individual research project. We will carefully scrutinize the objectives, methods, and approach of each research project before allowing it on the refuge. We will not allow any research project that lacks an approved study plan and protocol or compromises public health and safety. We will route draft proposals through the Regional Research Coordinator and Regional Biologist for review to ensure that protocols meet Service standards.

5. Why is the use being proposed?

Research by non-Service personnel is conducted by colleges, universities, federal, state, and local agencies, non-governmental organizations, and qualified members of the public furthers our understanding of the natural environment and improves the management of refuge natural resources. Much of the information research generates applies to management on and near the refuge.

The Service encourages and supports research and management studies on refuge lands that will improve and strengthen decisions on managing natural resources. The refuge manager encourages and seeks research that clearly relates to approved refuge objectives, improves habitat management, and promotes adaptive management. Priority research addresses information on better managing the Nation's biological resources that generally are important to agencies of the Department of Interior, the National Wildlife Refuge System, and State Fish and Game Agencies, that address important management issues, or demonstrate techniques for managing species or habitats.

We also consider research for other purposes that may not relate directly to refuge-specific objectives, but contribute to the broader enhancement, protection, use, preservation or management of native populations of fish, wildlife and plants, and their natural diversity in the region or the Atlantic flyway. All proposals must comply with Service policy on compatibility.

Both the Refuge Manual and the Service Manual provide guidance on allowing research on refuges. The Refuge Manual (4 RM 6.2) lists three objectives that can be met by permitting research on refuges:

- 1) To promote new information which will improve the quality of refuge and other Service management decisions,
- 2) To expand the body of scientific knowledge about fish and wildlife, their habitats, the use of these resources, appropriate resource management, and the environment in general, and
- 3) To provide the opportunity for students and others to learn the principles of field research.

The Service Manual (603 FW 1.10D(4)) provides supplemental guidance in terms of the appropriateness of research on refuges, as follows: “We actively encourage cooperative natural and cultural research activities that address our management needs. We also encourage research related to the management of priority general public uses. Such research activities are generally appropriate. However, we must review all research activities to decide if they are appropriate or not as defined in section 1.11. Research that directly benefits refuge management has priority over other research.”

The Refuge Manager determined that research is an appropriate use of the refuge in a document signed on December 7, 2006. We will follow the above-referenced guidance in seeking and approving any research activities on the refuge.

There are two examples of research completed on the refuge that serve to illustrate the kind of research that may occur in the future. Both of these projects were conducted by Service personnel or Service-authorized agents, and therefore were classified as management activities not subject to compatibility review. However, they are excellent examples of the type of research we would consider to be appropriate and compatible.

Winter Grassland Bird Study – Few investigations have been completed on methodologies for inventorying obligate grassland birds on their wintering ranges. After consulting the literature and expert ornithologists, the refuge and regional biologists crafted a study to examine three different methods, their relative costs, and their statistical robustness. The results gave the refuge information on species using the refuge in winter months, the kinds of structural habitats they were using, and provided information on methods that could be used by other refuges seeking similar information.

Effects of Salinity and Nitrogen on the Distribution and Growth of *Phragmites australis* Along the Rappahannock River – The refuge has promoted and sponsored an aggressive control program for common reed (*Phragmites*) on both public and private lands along the Rappahannock River for several years. This study examined both native and introduced genotypes of *Phragmites* and the effects of salinity and nitrogen on growth and distribution. The

results not only added new information to the scant body of literature regarding native *Phragmites*, but gave the refuge specific locations of native stands, and potential locations based on salinity regimes, in order to better protect this subspecies during control operations.

Availability of Resources: Refuge support for research may take the form of funding, in-kind services such as housing, the use of other refuge facilities, vehicles, boats, or equipment, the direct assistance of refuge staff in collecting data, providing historical records, conducting management treatments, or providing other assistance as appropriate. Generally, however, we incur the bulk of the cost for research in staff time to review research proposals, coordinate with researchers, and write special use permits (SUPS). In some cases, a research project may require only a few hours of staff time to review the proposal, coordinate with other reviewers, and write a SUP. In other cases, a research project may involve more significant staff time, because the refuge staff must coordinate with students and advisors and accompany researchers on site visits.

For projects conducted entirely by non-Service researchers, the following staff resources would be typical:

Proposal review, coordination, and SUP preparation –	Refuge Manager, 2 hours	\$112
	Deputy Manager, 2 hours	\$ 90
	Refuge Biologist, 8 hours	\$283
Total		\$485

For the refuge to expend significantly more than this level of resources, the research would generally be required to have specific implications to our management. If the research was aimed at answering refuge-specific management questions, we would consider contributing additional resources. In this case, we might expect to contribute the following:

Proposal review, coordination, and SUP preparation –	Refuge Manager, 8 hours	\$ 448
	Deputy Manager, 8 hours	\$ 362
	Refuge Biologist, 16 hours	\$ 566
Field assistance	Refuge Biologist, 160 hours	\$5,659
	Maint. Worker, 40 hours	\$ 961
Use of Facilities and Equipment		
Trailer as quarters	30 days @ \$12/day	\$ 360
Vehicle or boat	30 days @\$20/day	\$ 600
Total		\$8,956

Anticipated Impacts on Refuge Purpose: We are scheduled to complete our Comprehensive Conservation Plan in 2007. In the interim, we are using the broad objectives set forth in the Environmental Assessment prepared during the establishment of the Refuge in 1995. They are as follows:

- (1) To preserve and enhance the refuge's land and water in a manner that will conserve the natural diversity of fish, wildlife, plants and their habitats for present and future generations;
- (2) To protect, restore and enhance ecologically significant wetland habitats;
- (3) To conserve and enhance populations of fish, wildlife, and plants within refuge boundaries; to manage and perpetuate the migratory bird resource including populations of waterfowl, neotropical migrants, raptors, passerines, and marsh and water birds;
- (4) To protect, restore and enhance interjurisdictional fish populations;
- (5) To protect and enhance endangered and threatened species populations;
- (6) To protect and enhance water quality of aquatic habitats with the refuge and the River;
- (7) To fulfill international treaty obligations of the United States with respect to fish and wildlife and their habitats, and
- (8) To provide opportunities for compatible scientific research, environmental education, and fish and wildlife-oriented recreation.

In terms of the impacts related specifically to interim objectives of the Refuge, we expect no negative long-term impact to the **wildlife or plant diversity, wetlands, migratory birds, interjurisdictional fish, threatened and endangered species, water quality, treaty obligations, or wildlife -dependent recreation.**

Ideally, any research project conducted on the refuge would positively contribute to one or more of our interim objectives. There may be short-term disturbance to plants and wildlife during field investigations, but this is unavoidable in most cases. We will conduct Intra-Service Section 7 Biological Evaluations for any proposal that could be anticipated to have an impact on any federally threatened or endangered species. We will pay particular attention to the joint Service-State Bald Eagle Protection Guidelines for Virginia. These guidelines provide distance and time-of-year restrictions for activities that could disturb nesting or roosting eagles. We will ensure that the refuge or any non-Service researchers obtain any special permits, including collection and banding permits, required by State or Federal law prior to issuing a SUP.

Public Review and Comment: A Draft Compatibility Determination was released for public review from January 18 through February 9, 2007. A news release announcing the availability of the draft determination was issued to the following media outlets:

Rappahannock Times
Northern Neck News
Southside Sentinel
Northumberland Echo

Westmoreland News
Free Lance-Star
Rappahannock Record
Caroline Progress

Richmond Times Dispatch
The Journal
Daily Press
WRAR

WNNT
WKWI
NorthernNeckToday.com
TidewaterReview.com

During the public review period, we received one comment from a researcher from Virginia Commonwealth University who made suggestions on improving our requirements for captive animal handling and suggested limiting the number of pages for research study proposals. Both suggestions were incorporated into the final determination. We received no other comments.

Determination (check one below):

_____ **Use is Not Compatible**

 X **Use is Compatible With the Following Stipulations**

Stipulations Necessary to Ensure Compatibility:

We will require all researchers to submit a detailed research proposal that follows Rappahannock River Valley National Wildlife Refuge study proposal guidelines (see attachment I) and Service Policy (Refuge Manual 4 RM 6). Researchers must give us at least 45 days to review proposals before the research begins. If the research involves the collection of wildlife, the refuge must be given 60 days to review the proposal. Researchers must obtain all necessary scientific collecting or other permits before starting the research. We will prioritize and approve proposals based on the need, benefit, compatibility, and funding required for the research.

We require researchers to submit a final report to the refuge on completing their work. For long-term studies, we may also require interim progress reports. We also expect that research will be published in peer-reviewed publications. All reports, presentations, posters, articles or other publications will acknowledge the Refuge System and Rappahannock River Valley Refuge as partners in the research.

We will issue SUPs for all research conducted by non-Service personnel. The SUP will list all conditions necessary to ensure compatibility. The SUPs will also identify a schedule for annual progress reports and the submittal of a final report or scientific paper.

We may ask our regional refuge biologists, other Service divisions, state agencies, or academic experts to review and comment on proposals. We will require all researchers to obtain appropriate state and federal permits.

Justification

The Service encourages research on national wildlife refuges to promote new information which will improve the quality of refuge and other Service management decisions, to expand the body of scientific knowledge about fish and wildlife, their habitats, the use of these resources, appropriate resource management, and the environment in general, and to provide the opportunity for students and others to learn the principles of field research.

In accordance with 50 CFR 26.41, research conducted by non-Service personnel, as described in this compatibility determination, will not materially interfere with, or detract from, the fulfillment of the National Wildlife Refuge System mission or the purposes for which the refuge was established.

Signature: Refuge Manager: Joseph F. McAuley 2/22/07
(Signature and Date)

Concurrence: Regional Chief: Anthony D. Leger 03/23/2007
(Signature and Date)

Mandatory 10- year Re-evaluation Date: March 23, 2017

Literature Cited

USFWS. 1982. Research and Management Studies. Refuge Manual, 6 RM 4, Washington D.C.

USFWS. 2006. Policy on Appropriate Refuge Uses. Fish and Wildlife Service Manual, 601 FW 3, Washington, D.C.

Attachment I. Rappahannock River Valley National Wildlife Refuge Study Proposal Guidelines¹

A study proposal is a justification and description of the work to be done, and includes cost and time requirements. The proposals must be specific enough to serve as blueprints for the investigation. They must spell out in advance systematic plans for the investigation at a level of detail commensurate with the cost and scope of the project and the needs of management. Please submit proposals electronically as a Microsoft[®] Word[®] document or hard copy to the refuge manager. Please limit submissions to 20 one-sided, or 10 double-sided pages.

The following list provides a general outline of first-order headings/sections for study proposals.

- Cover Page
- Table of Contents (for longer proposals)
- Abstract
- Statement of Issue
- Literature Summary
- Objectives/Hypotheses
- Study Area
- Methods and Procedures
- Quality Assurance/Quality Control
- Specimen Collections
- Deliverables
- Special Requirements, Concerns, Necessary Permits
- Literature Cited
- Peer Review
- Budget
- Personnel and Qualifications

Cover Page

The cover page must contain the following information.

- Title of Proposal
- Current Date
- Investigator's(s')—name, title, organizational affiliation, address, telephone and fax numbers and e-mail address of all investigators or cooperators.
- Proposed Starting Date
- Estimated Completion Date
- Total Funding Support Requested from the U.S. Fish and Wildlife Service if applicable
- Signatures of Principal Investigator(s) and other appropriate institutional officials

¹ Adapted from Lake Umbagog NWR Study Proposal Guidelines

Abstract

The abstract should contain a short summary description of the proposed study, including reference to major points in the sections “Statement of Issue,” “Objectives,” and “Methods and Procedures.”

Statement of Issue

Provide a clear precise summary of the problem to be addressed and the need for its solution. This section should include statements of the importance, justification, relevance, timeliness, generality, and contribution of the study. Describe how any products will be used, including any anticipated commercial use. What is the estimated probability of success of accomplishing the objective(s) within the proposed timeframe?

Literature Summary

This section should include a thorough but concise literature review of current and past research that pertains to the proposed research, especially any pertinent research conducted on national wildlife refuges. A discussion of relevant legislation, policies, and refuge planning and management history, goals, and objectives should also be included if applicable.

Objectives/Hypotheses

A very specific indication of the proposed outcomes of the project should be stated as objectives or hypotheses to be tested. Project objectives should be measurable. Provide a brief summary of what information will be provided at the end of the study and how it will be used in relation to the problem. These statements should flow logically from the statement of issue and directly address the management problem.

Establish data quality objectives in terms of precision, accuracy, completeness, and comparability as a means of describing how good the data need to be to meet the project’s objectives.

Study Area

Provide a detailed description of the geographic area(s) to be studied and include a clear map delineating the proposed study area(s) and showing specific locations where work will occur.

Methods and Procedures

This section should describe as precisely as possible, how the objectives will be met or how the hypotheses will be tested. Include detailed descriptions and justifications of the field and laboratory methodology, protocols, and instrumentation. Explain how each variable to be measured directly addresses the research objective/ hypothesis. Describe

the experimental design, population, sample size, and sampling approach (including procedures for sub-sampling). Summarize the statistical and other data analysis procedures to be used. List the response variables and tentative independent variables or covariates. Describe the experimental unit(s) for statistical analysis. Also include a detailed project time schedule that includes start, fieldwork, analysis, reporting, and completion dates.

Quality Assurance/Quality Control

Adequate quality assurance/quality control (QA/QC) procedures help insure that data and results are credible and not an artifact of sampling or recording errors; of known quality; able to stand up to external scientific scrutiny; and accompanied by detailed method documentation. Describe the procedures to be used to insure that data meet defined standards of quality and program requirements, errors are controlled in the field, laboratory, and office, and data are properly handled, documented, and archived. Describe the various steps (e.g. personnel training, calibration of equipment, data verification and validation) that will be used to identify and eliminate errors introduced during data collection (including observer bias), handling, and computer entry. Identify the percentage of data that will be checked at each step.

Specimen Collections

Clearly describe the kind (species), numbers, sizes, and locations of animals, plants, rocks, minerals, or other natural objects to be sampled, captured, or collected. Identify the reasons for collecting, the intended use of all the specimens to be collected, and the proposed disposition of collected specimens. For those specimens to be retained permanently as voucher specimens, identify the parties responsible for cataloging, preservation, and storage and the proposed repository.

Deliverables

The proposal must indicate the number and specific format of hard and/or electronic media copies to be submitted for each deliverable. The number and format will reflect the needs of the refuge and the refuge manager. Indicate how many months after the project is initiated (or the actual anticipated date) that each deliverable will be submitted. Deliverables are to be submitted or presented to the refuge manager.

Deliverables that are required are as follows.

Reports and Publications

Describe what reports will be prepared and the timing of reports. Types of reports required in fulfillment of natural and social science study contracts or agreements include:

- 1). Progress report(s) (usually quarterly, semiannually, or annually): (may be required)
- 2). Draft final and final report(s): (always required).

A final report must be submitted in addition to a thesis or dissertation (if applicable) and all other identified deliverables. Final and draft final reports should follow refuge guidelines (attachment I).

In addition, investigators are encouraged to publish the findings of their investigations in refereed professional, scientific publications and present findings at conferences and symposia. Investigator publications will adhere to Service design standards. The refuge manager appreciates opportunities to review manuscripts in advance of their publication.

Data Files

Provide descriptions of any spatial (GIS) and non-spatial data files that will be generated and submitted as part of the research. Non-spatial data must be entered onto Windows CD-ROMs in Access or Excel. Spatial data, which includes GPS-generated files, must be in a format compatible with the refuge's GIS system (ArcGIS 8 or 9, Arcview 3.3, or e00 format). All GIS data must be in UTM 18, NAD 83. A condition of the permit will be that the Service has access to and may utilize all GIS information generated.

Metadata

For all non-spatial and spatial data sets or information products, documentation of information (metadata) describing the extent of data coverage and scale, the history of where, when, and why the data were collected, who collected the data, the methods used to collect, process, or modify/ transform the data, and a complete data dictionary must also be provided as final deliverables. Spatial metadata must conform to U.S. Fish and Wildlife Service (FGDC) metadata standards.

Oral Presentations

Three types of oral briefings should be included: pre-study, annual, and closeout. These briefings will be presented to refuge staff and other appropriate individuals and cooperators. In addition, investigators should conduct periodic informal briefings with refuge staff throughout the study whenever an opportunity arises. During each refuge visit, researchers should provide verbal updates on project progress. Frequent dialogue between researchers and refuge staff is an essential element of a successful research project.

Specimens and Associated Project Documentation

A report on collection activities, specimen disposition, and the data derived from collections, must be submitted to the refuge following refuge guidelines.

Other:

Researchers must provide the refuge manager with all of the following.

- 1) Copies of field notes/ notebooks/ datasheets
- 2) Copies of raw data (in digital format), including GIS data, as well as analyzed data
- 3) Copies of all photos, slides (digital photos preferred), videos, films
- 4) Copies of any reports, theses, dissertations, publications or other material (such as news articles) resulting from studies conducted on refuge.
- 5) Detailed protocols used in study
- 6) Aerial photographs
- 7) Maps/GIS
- 8) Interpretive brochures and exhibits
- 9) Training sessions (where appropriate)
- 10) Survey forms
- 11) Value-added software, software developed, models

Additional deliverables may be required of specific studies.

Special Requirements, Permits, and Concerns

Provide information on the following topics where applicable. Attach copies of any supporting documentation that will facilitate processing of your application.

Refuge Assistance

Describe any refuge assistance needed to complete the proposed study, such as use of equipment or facilities or assistance from refuge staff. It is important that all equipment, facilities, services, and logistical assistance expected to be provided by the Fish and Wildlife Service be specifically identified in this section so all parties are in clear agreement before the study begins.

Ground Disturbance

Describe the type, location, area, depth, number, and distribution of expected ground-disturbing activities, such as soil pits, cores, or stakes. Describe plans for site restoration of significantly affected areas.

Proposals that entail ground disturbance may require an archeological survey and special clearance prior to approval of the study. You can help reduce the extra time that may be required to process such a proposal by including identification of each ground disturbance area on a USGS 7.5-minute topographic map.

Site Marking and/or Animal Marking

Identify the type, amount, color, size, and placement of any flagging, tags, or other markers needed for site or individual resource (e.g. trees) identification and location. Identify the length of time it is needed and who will be responsible for removing it.

Identify the type, color, placement of any tags placed on animals (see special use permit for stipulations on marking and handling of animals)

Access to Study Sites

Describe the proposed method and frequency of travel to and within the study site(s). Explain any need to enter restricted areas. Describe the duration, location, and number of participants, and approximate dates of site visits.

Use of Mechanized and Other Equipment

Describe any vehicles, boats, field equipment, markers, or supply caches by type, number, and location. You should explain the need to use these materials and if or how long they are to be left in the field.

Safety

Describe any known potentially hazardous activities, such as electro-fishing, scuba diving, whitewater boating, aircraft use, wilderness travel, wildlife capture or handling, wildlife or immobilization.

Chemical Use

Identify chemicals and hazardous materials that you propose using within the refuge. Indicate the purpose, method of application, and amount to be used. Describe plans for storage, transfer, and disposal of these materials and describe steps to remediate accidental releases into the environment. Attach copies of Material Safety Data Sheets. Pesticide Use Proposals (PUP) may be required. If so, the cooperator must provide all required information to the Deputy Refuge Manager in order to prepare the PUP.

Animal Welfare

If the study involves vertebrate animals, you must follow protocols mandated by the Health Research Extension Act of 1985. It is recommended that you submit a copy of your proposal to the Institutional Animal Care and Use Committee for approval and submit a copy of the IACUC approval letter with your study proposal, or submit a copy of your protocols showing that you are following IACUC requirements. If your IACUC application is in process, you may submit your study proposal in advance of IACUC approval, but you must have approval prior to starting the project. Include qualifications of personnel relevant to animal handling and care. Describe alternatives considered, and outline procedures to be used to alleviate pain or distress. Include contingency plans to be implemented in the event of accidental injury to or death of the animal. Include state and federal permits. Where appropriate, coordinate with and inform state natural resource agencies.

Literature Cited

List all reports and publications cited in the proposal.

Peer Review

Provide the names, titles, addresses, and telephone numbers of individuals with subject-area expertise who have reviewed the research proposal. If the reviewers are associated with the investigator's research institution or if the proposal was not reviewed, please provide the names, titles, addresses, and telephone numbers of 3 to 5 potential subject-area reviewers who are not associated with the investigator's institution. These individuals will be asked to provide reviews of the proposal, progress reports, and the draft final report.

Budget

The budget must reflect both funding and assistance that will be requested from the U.S. Fish and Wildlife Service and the cooperator's contributions on an identified periodic (usually annual) basis. If Service funds are requested, the following budget items must be itemized:

Personnel Costs

Identify salary charges for principal investigator(s), research assistant(s), technician(s), clerical support, and others. Indicate period of involvement (hours analysis and report writing and editing).

Fringe Benefits

Itemize fringe benefit rates and costs.

Travel

Provide separate estimates for fieldwork and meetings. Indicate number of trips, destinations, estimated miles of travel, mileage rate, air fares, days on travel, and daily lodging and meals charges. Vehicle mileage rate cannot exceed standard government mileage rates if federal funds are to be used. Charges for lodging and meals are not to exceed the maximum daily rates set for the locality by the Federal Government (contact the refuge for current rates).

Equipment

Itemize all equipment to be purchased or rented and provide a brief justification for each item costing more than \$1,000. Be sure to include any computer-related costs. For proposals funded under US Fish and Wildlife Service agreement or contract, the refuge reserves the right to transfer the title of purchased equipment

with unit cost of \$1,000 or more to the Federal Government following completion of the study. These items should be included as deliverables.

Supplies and Materials

Purchases and rentals under \$1,000 should be itemized as much as is reasonable.

Subcontract or Consultant Charges

All such work must be supported by a subcontractor's proposal also in accordance with these guidelines.

Specimen Collections

Identify funding requirements for the cataloging, preservation, storage, and analyses of any collected specimens that will be permanently retained.

Printing and Copying

Include costs for preparing and printing the required number of copies of progress reports, the draft final report, and the final report. In general, a minimum of two (2) copies of progress reports (usually due quarterly, semiannually, or as specified in agreement), the draft final report, and the final report are required.

Indirect Charges

Identify the indirect cost (overhead) rate and charges and the budget items to which the rate is applicable.

Cooperator's Contributions

Show any contributing share of direct or indirect costs, facilities, and equipment by the cooperating research institution.

Outside Funding

List any outside funding sources and amounts.

Personnel and Qualifications

List the personnel who will work on the project and indicate their qualifications, experience, and pertinent publications. Identify the responsibilities of each individual and the amount of time each will devote. A full vita or resume for each principal investigator and any consultants should be included here.

Interim and Final Report Guidelines

Draft final and final reports should follow Journal of Wildlife Management format, and should include the following sections.

- Title Page
- Abstract
- Introduction/ Problem statement
- Study Area
- Methods (including statistical analyses)
- Results
- Discussion
- Management Implications
- Management Recommendations
- Literature Cited

FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: Rappahannock River Valley NWRUse: Retrieval of Hunting Dogs

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	✓	
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	✓	
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	✓	
(d) Is the use consistent with public safety?	✓	
(e) Is the use consistent with goals and objectives in an approved management plan or other document?	✓	
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	✓	
(g) Is the use manageable within available budget and staff?	✓	
(h) Will this be manageable in the future within existing resources?	✓	
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?	✓	
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?	✓	

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will **generally** not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes ✓ No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate Appropriate ✓Refuge Manager: Joseph F. Lee BuckleyDate: 11/14/07

If found to be **Not Appropriate**, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found **Not Appropriate** outside the CCP process, the refuge supervisor must sign concurrence.

If found to be **Appropriate**, the refuge supervisor must sign concurrence.

Refuge Supervisor: Steve ZunderbushDate: 11/19/07

A compatibility determination is required before the use may be allowed.

FWS Form 3-2319
02/06

Justification for Hunting Dog Retrieval as an Appropriate Use
Eastern Virginia Rivers NWR Complex
Rappahannock River Valley NWR

Rappahannock River Valley National Wildlife Refuge was established

“...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds ... 16 U.S.C. § 715d (Migratory Bird Conservation Act,” and

“... to conserve (A) fish or wildlife which are listed as endangered species or threatened species or (B) plants ... 16 U.S.C. § 1534 (Endangered Species Act of 1973),” and

“... the conservation of the wetlands of the Nation in order to maintain the public benefits they provide and to help fulfill international obligations contained in various migratory bird treaties and conventions ... 16 U.S.C. § 3901(b), 100 Stat. 3583 (Emergency Wetlands Resources Act of 1986),” and

“for the development, advancement, management, conservation, and protection of fish and wildlife resources ... 16 U.S.C. § 742f(a)(4) (Fish and Wildlife Act of 1956).

The purpose of this use is to allow dog owners and handlers to retrieve hunting dogs when they have accidentally entered the Rappahannock River Valley National Wildlife Refuge during general firearms hunting season for deer. We would issue a special use permit, which would also allow the temporary presence of accidentally introduced hunting dogs on the refuge while they are being retrieved.

Hunting deer with pursuit dogs is a traditional and legal method in the counties of the Northern Neck and Middle Peninsula. However, Refuge System regulations prohibit domestic animals, including dogs, to roam at large on any national wildlife refuge. State regulations that allow retrieval of hunting dogs from private land do not apply to refuge lands. We recognize that to strictly enforce Federal regulations would essentially eliminate this traditional method of hunting from lands in close proximity to refuge lands. Therefore we have instituted this permit to allow hunting dogs, hunting dog owners, and those acting on behalf of hunting dog owners, to legally enter the refuge and retrieve their dogs during hunting season when dogs frequently enter the refuge accidentally from adjoining private lands. The permit is based on several assumptions, as described below:

We have had many conversations with dog owners over the past several years in an attempt to develop a mutually-acceptable solution to this issue. We acknowledge that the problem of dogs running at large on the refuge outside of the hunting season has decreased significantly due to cooperation from dog owners. We understand that the refuge attracts dogs released on adjoining lands due to the presence of game animals. We believe that dog owners in general want to retrieve their dogs from refuge lands because if game animals being pursued stay on refuge lands, they are unavailable for harvest by hunters on private lands. However, we recognize that by instituting this permit system, we are opening up the potential for its abuse. For example:

Since many refuge properties are open for deer hunting, dog owners and/or fellow hunt club members could apply for a refuge hunting permit and release dogs on adjoining private lands with the expectation that the dogs would run deer in their direction. This would essentially be the same as hunting with dogs on the refuge, which is prohibited. If we document this activity, the permit may be revoked and violation notices may be issued to the individuals involved.

Similarly, dog owners may release their dogs immediately adjacent to refuge lands with the expectation that the dogs will pursue game through refuge lands to hunters waiting on or near the refuge boundary on the opposite side of the tract. This type of activity shows the intentional release of dogs near or around the refuge and again, if this activity is documented, the permit may be revoked and violation notices may be issued.

There are certain dates when dogs on the refuge during the permitted period are more problematic. These include the refuge muzzleloader hunt dates, dates of wildlife surveys such as the annual Christmas Bird Count, and special public events. The Christmas Bird Count is held each year on the first or second Saturday before Christmas. At the time the permit is prepared and signed, or at least within 30 days of the events, we will inform permit holders of these dates and ask that they take special care not to allow their dogs to enter the refuge. Retrieval permits will not be valid on those dates.

This permit is the only method the refuge has to allow free-roaming dogs to be on the refuge legally, and for them to be legally retrieved. Persons whose dogs may roam on the refuge will be afforded the opportunity to sign and hold an annual permit. Dog owners whose animals are found on the refuge and who have refused to sign a permit, are subject to prosecution.

Dogs that are found roaming at large on the refuge outside of the permitted dates (as specified on the permit or on special occasions where dog owners are notified within 30 days as outlined above), will constitute a violation of federal law title 50 CFR 26.21(b), and the owner of such dogs may have their permit revoked, and or may be issued a federal violation notice with a fine (at time of writing) of not less than \$95 for each dog.

We expect to continue to work cooperatively with dog owners and other hunters to refine and adjust the permit conditions as is necessary to protect refuge visitors, protect wildlife, provide refuge hunters with a quality hunting experience, and promote the traditions of hunting that have existed for generations on the Northern Neck and Middle Peninsula. We therefore have determined that retrieval of dogs during the State firearms hunting season for white-tailed deer is an appropriate use of the refuge.

COMPATIBILITY DETERMINATION

Project Title: Retrieval of Hunting Dogs
Station Name: Rappahannock River Valley National Wildlife Refuge
Date Established: May 28, 1996

Establishing Authorities:

The Emergency Wetlands Resources Act of 1986 (100 Stat. 3582-91) for: "...the conservation of the wetlands of the Nation in order to maintain the public benefits they provide and to help fulfill international obligations contained in various migratory bird treaties and conventions..." (16 U.S.C. §3901(b); 100 Stat. 3583).

The Endangered Species Act of 1973 (16 U.S.C. §1531-1543), as amended: "...to conserve (A) fish or wildlife which are listed as endangered species or threatened species...or (B) plants..." (16 U.S.C. §1534).

The Land and Water Conservation Fund Act (P.L. 88-578; 16 U.S.C. §4601; 78 Stat. 897) for: "...the acquisition of areas needed for conserving endangered or threatened species of fish, wildlife and plants..." (P.L. 94-422; 90 Stat. 1313).

Purpose for which Established:

The purposes for which the Rappahannock River Valley National Wildlife Refuge was established are:

"...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds ... 16 U.S.C. § 715d (Migratory Bird Conservation Act)," and

"... to conserve (A) fish or wildlife which are listed as endangered species or threatened species or (B) plants ... 16 U.S.C. § 1534 (Endangered Species Act of 1973)," and

"... the conservation of the wetlands of the Nation in order to maintain the public benefits they provide and to help fulfill international obligations contained in various migratory bird treaties and conventions ... 16 U.S.C. § 3901(b), 100 Stat. 3583 (Emergency Wetlands Resources Act of 1986)," and

"for the development, advancement, management, conservation, and protection of fish and wildlife resources ... 16 U.S.C. § 742f(a)(4) (Fish and Wildlife Act of 1956)."

National Wildlife Refuge System Mission: To administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.

Description of Proposed Use: The following questions and answers provide a concise description of the proposed use.

1. What is the use? Is the use a priority public use? The use is retrieval of hunting dogs on the refuge during the State regular firearms hunting season for white-tailed deer. This use is not a priority public use of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997.

2. Where would the use be conducted? We would allow this use on all refuge properties, but we expect it will be primarily confined to those tracts that are in proximity to private lands where deer hunting occurs.

3. When would the use be conducted? Retrieval of hunting dogs would be allowed only during the regular firearms hunting season for white-tailed deer. This is currently the only time when the use of pursuit dogs for deer hunting is permitted by the State.

4. How would the use be conducted? Special use permits would be issued upon request to the owners of dogs that are used to pursue deer during the State firearms season. If hunting dogs accidentally enter the refuge during the hunting season, dog owners would be permitted to enter the refuge by foot or vehicle to catch and remove the dogs without committing a violation of refuge regulations. The following special conditions will apply to each permit issued:

1. The permittee will make a reasonable effort to ensure that his/her dogs, or dogs under their custody, do not enter refuge lands at any time. If the permittee makes a reasonable effort to ensure that their dogs do not enter refuge lands, accidental entry of dogs will be permitted on the refuge temporarily while the owner, custodian, or a person under their behalf makes efforts to catch said dogs until they are removed from the refuge.
2. During the general firearms season for deer hunting, as set by the Virginia Department of Game and Inland Fisheries, if the permittee's dogs, or dogs under his/her custody, enter the refuge accidentally, the permittee will be allowed access to refuge lands for the purpose of retrieving his/her dogs or other dogs under his/her custody.
3. Prior to entering the refuge to retrieve dogs, the permittee must call the headquarters office at 804-333-1470 to inform refuge staff and will provide such information as is requested, such as location, estimated time needed to retrieve the dogs, number of dogs, vehicle information, etc. If no one answers, they must leave a message which includes their name, date, time, and location of the incident.
4. After getting permission to retrieve dogs or leaving a message, dog owners will immediately make reasonable efforts to retrieve their dogs until they are caught and removed from the refuge.
5. Dog retrieval is permitted by foot or vehicle. All vehicles must remain on hard surface refuge roads; no driving in fields or along mowed paths. Vehicles must not block road, or access to any road or mown path for permitted hunters. If a particular refuge tract is gated and locked, the permittee will be given the combination of the lock and may proceed through the gate. Gates must be locked while the permittee is on the refuge to prevent unauthorized access, and must be locked again upon leaving the refuge. The combination to locks will be changed routinely, so permittees must call the office at the number listed above under condition #3 to obtain or verify the combination prior to attempting to retrieve their dogs. Normal office hours are Monday through Friday, 8:00 a.m. to 4:30 p.m. If permittees expect a need to retrieve their dogs at a time when the office is unstaffed, they should call during office hours to obtain the combination. If for any reason the permittee cannot obtain the combination or if the lock will not open, access will be by foot only.
6. If any refuge staff member observes a dog on the refuge and contacts the owner, the owner will take immediate steps to remove the dog from the refuge.
7. All dogs will, at a minimum, be equipped with a dog collar bearing the name and phone number of the owner or custodian.
8. During the periods listed above in #2, upon a minimum of 30 days notice from the refuge, the permittee will refrain from letting his/her dogs loose where they might be expected to interfere with planned refuge activities, such as the Christmas Bird Count, refuge muzzleloader hunts dates, or special public events.
9. Permittee must not possess deer, tagged or untagged, or any other game while searching for dogs on the refuge.

10. Permittee must adhere to all other refuge, State, and local regulations while retrieving dogs, including but not limited to: unauthorized possession of a firearm or weapon (on their person or in a vehicle), operating a vehicle off designated roadway, entering or remaining on the refuge after dark, use of artificial light to locate wildlife on the refuge. When in doubt, ask the refuge manager, refuge personnel, or law enforcement officer.

11. This permit may be revoked if the permittee violates the conditions of the permit or any other refuge regulation.

12. All conditions of this permit are enforceable by law under title 50 Code of Federal Regulations Wildlife and Fisheries PART 26—PUBLIC ENTRY AND USE Subpart B—Public Entry § 26.22 General exception for entry... (b) A permit shall be required for any person entering a national wildlife refuge, unless otherwise provided under the provisions of subchapter C. The permittee will abide by all the terms and conditions set forth in the permit.

5. Why is the use being proposed?

The purpose of this special use permit is to allow dog owners and handlers to retrieve hunting dogs when they have accidentally entered the Rappahannock River Valley National Wildlife Refuge during general firearms hunting season for deer. The permit also allows the temporary presence of accidentally introduced hunting dogs on the refuge while they are being retrieved.

Hunting deer with pursuit dogs is a traditional and legal method in the counties of the Northern Neck and Middle Peninsula. However, Refuge System regulations prohibit domestic animals, including dogs, to roam at large on any national wildlife refuge. State regulations that allow retrieval of hunting dogs from private land do not apply to refuge lands. We recognize that to strictly enforce Federal regulations would essentially eliminate this traditional method of hunting from lands in close proximity to refuge lands. Therefore we have instituted this permit to allow hunting dogs, hunting dog owners, and those acting on behalf of hunting dog owners, to legally enter the refuge and retrieve their dogs during hunting season when dogs frequently enter the refuge accidentally from adjoining private lands. The permit is based on several assumptions, as described below:

We have had many conversations with dog owners over the past several years in an attempt to develop a mutually-acceptable solution to this issue. We acknowledge that the problem of dogs running at large on the refuge outside of the hunting season has decreased significantly due to cooperation from dog owners. We understand that the refuge attracts dogs released on adjoining lands due to the presence of game animals. We believe that dog owners in general want to retrieve their dogs from refuge lands because if game animals being pursued stay on refuge lands, they are unavailable for harvest by hunters on private lands. However, we recognize that by instituting this permit system, we are opening up the potential for its abuse. For example:

Since many refuge properties are open for deer hunting, dog owners and/or fellow hunt club members could apply for a refuge hunting permit and release dogs on adjoining private lands with the expectation that the dogs would run deer in their direction. This would essentially be the same as hunting with dogs on the refuge, which is prohibited. If we document this activity, the permit may be revoked and violation notices may be issued to the individuals involved.

Similarly, dog owners may release their dogs immediately adjacent to refuge lands with the expectation that the dogs will pursue game through refuge lands to hunters waiting on or near the refuge boundary on the opposite side of the tract. This type of activity shows the intentional release of dogs near or around the refuge and again, if this activity is documented, the permit may be revoked and violation notices may be issued.

There are certain dates when dogs on the refuge during the permitted period are more problematic. These include the refuge muzzleloader hunt dates, dates of wildlife surveys such as the annual Christmas Bird Count, and special public events. The Christmas Bird Count is held each year on

the first or second Saturday before Christmas. At the time the permit is prepared and signed, or at least within 30 days of the events, we will inform permit holders of these dates and ask that they take special care not to allow their dogs to enter the refuge. Retrieval permits will not be valid on those dates.

This permit is the only method the refuge has to allow free-roaming dogs to be on the refuge legally, and for them to be legally retrieved. Persons whose dogs may roam on the refuge will be afforded the opportunity to sign and hold an annual permit. Dog owners whose animals are found on the refuge and who have refused to sign a permit, are subject to prosecution.

Dogs that are found roaming at large on the refuge outside of the permitted dates (as specified on the permit or on special occasions where dog owners are notified within 30 days as outlined above), will constitute a violation of federal law title 50 CFR 26.21(b), and the owner of such dogs may have their permit revoked, and or may be issued a federal violation notice with a fine (at time of writing) of not less than \$95 for each dog.

We expect to continue to work cooperatively with dog owners and other hunters to refine and adjust the permit conditions as is necessary to protect refuge visitors, protect wildlife, provide refuge hunters with a quality hunting experience, and promote the traditions of hunting that have existed for generations on the Northern Neck and Middle Peninsula.

Availability of Resources: Staff resources required to administer this program include the time it takes to prepare permits, issue permits, enforce permit conditions, prepare news releases, and answer inquiries. We expect this will amount to an annual cost of less than \$500, with the exception of law enforcement. Enforcement of the permit will be done in conjunction with other law enforcement patrol duties during the hunting seasons and therefore will result in no added costs. Sufficient funds to administer this permit program are available in the expected annual base budget of \$850,000.

Anticipated Impacts on Refuge Purpose: As noted on page one of this compatibility determination, there are four purposes for establishment and management of this refuge. In general, they relate to four primary conservation and management responsibilities:

1. Migratory birds,
2. Threatened and endangered plant and animal species,
3. Wetlands, and
4. Other fish and wildlife resources.

Following is a discussion on the anticipated impacts of the proposed uses related to the resources listed within refuge purposes.

Potential impacts to birds: The presence of dogs and pedestrians on the refuge, either on trails or off trails, is likely to cause temporary disturbance to birds. A study done in Colorado (Miller et al. 2001) found that robins, representing forest species, and western meadowlarks and vesper sparrows, representing grassland species, flushed when approached by dogs on and off leash. Dogs alone generally resulted in less disturbance than when pedestrians were present, either alone or holding a leashed dog. The authors surmised that because dogs resemble coyotes and foxes, which are not considered significant predators of songbirds (Leach and Frazier 1953, Andelt et al. 1987), they may not have been perceived as an important threat. Disturbance was generally greater off trails than on trails.

There are two primary factors which lead us to believe that the level of disturbance will not materially interfere with our migratory bird purposes. One is that dogs alone are not likely to cause significant disturbance beyond that caused by foxes and coyotes. This belief is supplemented by the fact that hunting season occurs outside the breeding season for birds, which would be a more sensitive period in terms of protecting songbirds from disturbance. Secondly, most dog owners retrieving their animals will do so from existing roads. They will try to intercept the dogs as they